

1        This listing of claims replaces all prior versions and listings:

2        **Listing of Claims:**

3        **1-15. (canceled)**

4        **16. (previously presented) A method, comprising:**

5                determining a location of a computing unit, wherein the act of determining  
6                the location comprises receiving RF signals from a plurality of RF beacons having  
7                known locations and using environmental profiling to establish the location of the  
8                computing unit;

9                periodically transmitting, from the computing unit, the location of the  
10               computing unit to a network server together with a user name of a user using the  
11               computing unit; and

12               including an active signal with the periodically transmitted information  
13               when the user is actively using the computing unit.

14        **17. (original) The method as recited in claim 16, wherein:**

15               the computing unit is a mobile computing unit; and

16               the network server is a wireless network server.

17        **18. (original) The method as recited in claim 16, further comprising**  
18               time-stamping the transmission to the network server and transmitting the time  
19               stamp with the transmitted information.

1           **19-24. (canceled)**

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3           **25. (original)** The method as recited in claim 16, wherein the user  
4           actively using the computing unit further comprises the user having used the  
5           computing unit within a pre-defined time period.

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7           **26. (original)** The method as recited in claim 16, wherein the  
8           periodically transmitting the location of the computer unit to a network server only  
9           occurs upon a request from the network server for the computer unit to update the  
10           location of the computer unit.

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12           **27. (original)** The method as recited in claim 16, further comprising  
13           encrypting the location of the computing unit prior to transmitting the location of  
14           the computing unit to the network server.

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1       **28.** (previously presented) A system, comprising:

2           a server having memory;

3           a user database stored in the memory of the server, the user database  
4           containing a user field for storing a user name of a mobile computer user, and a  
5           last known location field for storing a most recent location of a computer user  
6           identified in a corresponding user field;

7           a wireless access point of a wireless local area network configured to  
8           receive RF network transmissions from one or more mobile computers;

9           a mobile computer having memory and a wireless network interface for RF  
10          communication with the wireless access point of the wireless local area network;

11          a location tracking system in the mobile computer memory configured to  
12          determine, based on a beacon packet's signal strength received from the wireless  
13          access point and using a previously established radio map, a location of the mobile  
14          computer;

15          a location manager in the mobile computer memory configured to  
16          periodically transmit the location of the mobile computer and the user name of a  
17          mobile computer user to the server via the wireless network interface; and

18          a computing unit having a computing unit location manager configured to  
19          search the user database of the server to determine information regarding the  
20          location of a mobile user.

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22       **29.** (original) The system as recited in claim 28, wherein the computing  
23       unit is a stationary computing unit.

1       30. (original) The system as recited in claim 28, wherein the computing  
2       unit is a mobile computing unit.

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4       31. (original) The system as recited in claim 28, wherein:  
5       the mobile computer further comprises a clock;  
6       the location manager is further configured to transmit a time of  
7       transmission to the server together with the location and user name information;  
8       and  
9       the user database further comprises a time field for storing the time that a  
10      transmission identifying the location of the mobile user and the user name of the  
11      mobile computer user is received from the mobile computer.

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13       32. (original) The system as recited in claim 28, wherein the user  
14      database further comprises an active field indicating if the mobile computer user  
15      has used the mobile computer within a specified time period.

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17       33. (original) The system as recited in claim 28, wherein the location  
18      manager transmits the location of the mobile computer in absolute coordinates.

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20       34. (original) The system as recited in claim 28, wherein the location  
21      manager transmits the location of the mobile computer in coordinates relative to a  
22      known absolute location.

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24       35. (original) The system as recited in claim 28, wherein the location  
25      manager transmits the location of the mobile computer as a geographic unit.

1       36. (original) The system as recited in claim 28, wherein the location  
2 manager transmits the location of a network node with which the mobile computer  
3 is communicating as the location of the mobile computer.

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5       37. (original) The system as recited in claim 28, wherein:  
6           the mobile computer is a first computer;  
7           the system further comprises a second computer having a location manager;  
8           the user database further comprises an active field;  
9           the mobile computer user is logged onto both the first mobile computer and  
10          the second computer;  
11           the location manager of the first computer and the location manager of the  
12          second computer are further configured to transmit an active signal for a specified  
13          period of time after the respective computers are used;  
14           the active field corresponding to the first computer indicating the mobile  
15          computer user last used the first computer when the active signal is transmitted  
16          from the first computer;  
17           the active field corresponding to the second computer indicating the mobile  
18          computer user last used the second computer when the active signal is transmitted  
19          from the second computer; and  
20           only one active field indicating activity by the mobile computer user at any  
21          given time.

1       38. (original) The system as recited in claim 28, wherein:  
2           the user database further comprises an OK field that contains data that  
3           identifies one or more system users that are authorized to receive data regarding  
4           the location of the mobile computer user identified in the corresponding user field.

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6       39. (original) The system as recited in claim 28, wherein the location  
7           manager of the computing unit is further configured to:

8           search the user database to locate an entry for a specific user;  
9           calculate a time differential between a current time and a time stored in the  
10          time field corresponding to the specific user if the specific user is found;

11          compare the time differential to a time threshold;

12          recognize the location contained in the last known location field  
13          corresponding to the specific user as the location of the specific user if the time  
14          differential is within the time threshold;

15          transmit a signal to cause the location manager of the mobile computer to  
16          invoke the location tracking system of the mobile computer if the time differential  
17          is not within the time threshold, to determine the location of the mobile computer  
18          and transmit location and user information to the server where it is stored in the  
19          user database; and

20          recognize the newly stored location contained in the last known location  
21          field corresponding to the specific user as the location of the specific user.

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23       40-44. (canceled)

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1       **45.** (previously presented) A mobile computing unit, comprising:  
2           memory;  
3           a wireless network interface configured to connect the mobile computing  
4           unit to multiple wireless access points of one or more remote servers;  
5           a location tracking service configured to determine a location of the mobile  
6           computer unit utilizing a radio frequency system capable of determining the  
7           location by detecting signals transmitted from multiple wireless access points; and  
8           a location manager configured to periodically transmit the location of the  
9           mobile computing unit to one or more of the remote servers via the wireless  
10          network interface.

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12       **46.** (previously presented) The mobile computing unit as recited in  
13       claim 45, wherein the location manager is further configured to transmit a user  
14       name of a user logged onto the mobile computing unit to one or more of the  
15       remote servers together with the location of the mobile computing unit.

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17       **47.** (previously presented) The mobile computing unit as recited in  
18       claim 45, wherein the location manager is further configured to transmit an active  
19       signal to one or more of the remote servers together with the location of the  
20       mobile computing unit when a user logged onto the mobile computing unit has  
21       actively used the unit within a specified period of time.

1       48. (original) The mobile computing unit as recited in claim 45, further  
2 comprising a clock, and wherein the location manager is further configured to  
3 time-stamp the transmission of the location information with a time that the  
4 transmission is sent.

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6       49. (original) The mobile computing unit as recited in claim 45,  
7 wherein the location manager identifies and transmits the location of a network  
8 node with which the mobile computing unit is communicating as the location of  
9 the mobile computing unit.

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11      50. (previously presented) The mobile computing unit as recited in  
12 claim 45, wherein the location manager is configured to invoke the location  
13 tracking service when commanded to do so by a second computing unit or one or  
14 more of the remote servers.

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16      51. (previously presented) The mobile computing unit as recited in  
17 claim 45, wherein the location manager transmits an absolute location of the  
18 mobile computing unit to one or more of the remote servers.

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20      52. (original) The mobile computing unit as recited in claim 45,  
21 wherein the location manager transmits the a location of the mobile computing  
22 unit relative to a known absolute location.

1       53. (previously presented) The mobile computing unit as recited in  
2 claim 45, wherein the location manager transmits a geographic region to one or  
3 more of the remote servers as the location of the mobile computing unit.

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5       54. (previously presented) The mobile computing unit as recited in  
6 claim 45, wherein the location manager is further configured to encrypt the  
7 location of the mobile computing unit before transmitting the location of the  
8 mobile computing unit to one or more of the remote servers.

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1       **55.** (previously presented) A method for locating a mobile computer  
2 user in a wireless network, comprising:

3           periodically identifying a location of a mobile computer that is used by a  
4 mobile user and associating a time stamp with the location indicating a time at  
5 which the location was identified, wherein the periodically identifying a location  
6 of a mobile computer further comprises identifying the location of the mobile user  
7 by measuring relative strengths of radio frequency transmissions emitted from a  
8 plurality of base stations;

9           transmitting the location of the mobile computer to a network server  
10 together with the time stamp and a name of the mobile user;

11           storing the transmitted information on the network server;

12           receiving a request from a computing unit for the location of the mobile  
13 user;

14           determining the last known location of the mobile computer by accessing  
15 the network server and finding the location having a most recent time stamp; and

16           recognizing the last known location of the mobile computer as the location  
17 of the mobile user.

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19       **56.** (canceled)

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21       **57.** (original) The method as recited in claim 55, further comprising:

22           transmitting an active signal together with the location information if the  
23 mobile user has actively used the mobile computer within a specified period of  
24 time.

1           58. (previously presented) A system, comprising:

2            a server having memory;

3            a user database stored in the memory of the server, the user database

4            containing a user field for storing a user name of a mobile computer user, and a

5            last known location field for storing a most recent location of a computer user

6            identified in a corresponding user field;

7            a wireless access point of a wireless local area network configured to

8            receive radio frequency network transmissions from one or more mobile

9            computers;

10           a mobile computer having memory and a wireless network interface for

11           radio frequency communication with the wireless access point;

12           a location tracking system in the mobile computer memory configured to

13           determine a location of the mobile computer;

14           a location manager in the mobile computer memory configured to transmit

15           the location of the mobile computer and the user name of a mobile computer user

16           to the server via the wireless network interface when a request to do so is received

17           from the server; and

18           a computing unit having a computing unit location manager configured to

19           search the user database of the server to determine information regarding the

20           location of a mobile user.

1       59. (previously presented) A method comprising:

2           receiving, at a server of a wireless local area network and from a mobile  
3           computer within the wireless local area network, multiple locations of the mobile  
4           computer, each of the multiple locations received at recurring time periods and  
5           determined using RF signals received from a plurality of RF beacons;

6           time-stamping each of the multiple locations based on the recurring time  
7           periods at which each of the multiple locations is received;

8           receiving, at the server, a request from a computing unit for a current  
9           location of a mobile computer user;

10          determining that the mobile computer user is identified with the mobile  
11          computer;

12          determining which of the multiple locations has a most-recent time-stamp;  
13          and

14          transmitting the location having the most-recent time-stamp to the  
15          computing unit.

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17        60. (previously presented) The method of claim 59, wherein the server  
18        is integral with a wireless access point.

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1        61. (previously presented) A method comprising:

2            receiving, at a server of a wireless local area network and sent from a  
3            mobile computer within the wireless local area network, multiple locations of the  
4            mobile computer, each of the multiple locations sent at recurring time periods;

5            time-stamping each of the multiple locations based on the recurring time  
6            periods at which each of the multiple locations is sent;

7            receiving, at the server, a request from a computing unit for a current  
8            location of a mobile computer user;

9            determining that the mobile computer user is identified with the mobile  
10           computer;

11           determining which of the multiple locations has a most-recent time-stamp;

12           calculating a time differential between a current time and the most-recent  
13           time stamp;

14           comparing the time differential with a pre-defined time threshold; and

15           transmitting the location having the most-recent time-stamp to the  
16           computing unit if the time differential is less than that of the pre-defined time  
17           threshold; or

18           invoking a location tracking service to identify, based on signal strengths of  
19           beacon packets and using a previously established radio map, a more-current  
20           location of the mobile computer if the time differential is greater than the pre-  
21           defined time threshold;

22           receiving a more-current location of the mobile computer; and

23           transmitting the more-current location to the computing unit.

1 62. (previously presented) The method of claim 61, wherein the server  
2 is integral with a wireless access point.

4 63. (previously presented) A method comprising:  
5 receiving radio frequency transmissions emitted from a plurality of radio  
6 frequency base stations of a wireless local area network;

7 measuring relative strengths of the radio frequency transmissions;  
8 determining a location of a mobile computing device based on the relative  
9 strengths:

10 identifying the location of the mobile computing device as that of a  
11 computer user;

12 receiving a request for the location of the computer user from a computing  
13 unit; and

14 transmitting the location of the computer user to the computing unit.

16 64. (previously presented) The method of claim 63, wherein the acts of  
17 receiving the radio frequency transmissions, measuring the relative strengths, and  
18 determining the location are performed by the mobile computing device.

20        65. (previously presented) The method of claim 63, wherein the act of  
21 identifying the location of the mobile computing device as that of the computer  
22 user comprises receiving from the mobile computing device an identifier  
23 associated with the computer user.

1       66. (previously presented) The method of claim 63, wherein the act of  
2 identifying the location of the mobile computing device as that of the computer  
3 user comprises calculating a time differential between a time stamp associated  
4 with the location of the mobile computing device and a current time, comparing  
5 the time differential with a predetermined time threshold, and defining the location  
6 of the mobile computing device as that of the computer user if the time differential  
7 is less than the time threshold.

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9       67. (previously presented) The method of claim 63, further comprising:  
10       receiving an active signal indicating that the computer user has actively  
11       used the mobile computing device within a specified period of time, and wherein  
12       the act of identifying the location comprises defining the location of the mobile  
13       computing device as that of the computer user if the active signal has been  
14       received within a predetermined period of time.

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